AVION TECHNOLOGY, INC.

# Custom Integration of **Salesforce** and **Shopify** for a Scalable Memorial Services Platform

## Project Summary

Project Type: Web Portal, Mobile App

Status: On Going

It is an online platform dedicated to facilitating the buying and selling of gravesites, burial plots, and cremation niches. It also offers users the ability to create virtual memorials, known as Eturnal Tributes, to honor their loved ones

## Challenges:

The platform faced several technical challenges while syncing data between Salesforce and Shopify, including:

- ✔ **Real-Time Syncing**: Ensuring instant updates from Salesforce to Shopify, such as burial plot availability and pricing, without manual intervention.

- ✔ **API Communication:** Handling secure authentication and data transfers between Salesforce and Shopify.

- ✔ **Data Mapping:** Aligning Salesforce's data model with Shopify's product structure, requiring data transformation and normalization.

- ✔ **Inventory Management:** Ensuring accurate availability for unique products like burial plots across both platforms.

- ✔ **Automation:** Reducing manual updates through automated workflows or middleware for scheduled tasks and webhooks.

## Solutions:

- ✅ **Salesforce–Shopify Integration:** We developed a custom API middleware to bridge Salesforce and Shopify, enabling seamless data synchronization between the CRM and storefront. This ensured that burial plots and cremation niches were always accurately reflected in real time, preventing discrepancies between the inventory and the website listings.

- ✅ **Secure and Compliant:** The use of AWS, along with secure payment gateways through Shopify, ensured that sensitive customer data was protected and compliant with privacy regulations.

- ✅ **User Management with WordPress & Ultimate Member Pro:** WordPress, enhanced with the Ultimate Member Pro plugin, was used to manage user roles and access. This setup allowed users to create memorial pages, interact with others, and manage their accounts while maintaining strict security for both buyers and sellers.

- ✅ **Scalable Hosting on AWS:** The platform was hosted on AWS EC2 for computing resources, with S3 used for storing multimedia content like images and tributes. AWS CloudFront provided a content delivery network (CDN) to ensure fast and reliable access to users across the country. Automated backups and disaster recovery protocols were set up to ensure data integrity.

- ✅ **Custom PHP Scripts:** Developed scripts for API integration, dynamic content handling, and automated email notifications..

- ✅ **Comprehensive CRM Integration:** Salesforce was integrated to manage all client interactions, inventory, and sales data. The integration with Shopify ensured that sales transactions were reflected in both the CRM and the e-commerce platform, creating a streamlined workflow.

## Tech Stack:

**Frontend:** WordPress with custom theming (hosted on AWS)

**Backend:** PHP (custom functions and API integrations),WordPress (Ultimate Member Pro for user management

**E- commerce Backend:** Shopify is used only for e-commerce backend — managing product listings, prices, and checkout.

**CRM & Sales Data Management:**Salesforce CRM, Salesforce Admin, Apex, Rest API, LWC, Soap API, Salesforce Edition Org.

**Hosting & Infrastructure:** Amazon Web Services (AWS).

**Database:** Database is hosted on Amazon RDS

**CDN:** Sucuri

## Results:

- ✅ **Streamlined Operations:** The seamless integration of Salesforce and Shopify helped automate data synchronization between the CRM and the e-commerce system, eliminating manual updates and reducing the potential for errors.

- ✅ **Scalability and Reliability:** The platform's hosting on AWS ensured the site could handle high traffic loads, especially during peak times. AWS's robust infrastructure provided the necessary flexibility and reliability to accommodate the growing user base.

- ✅ **Operational Efficiency:** The custom PHP scripts, alongside API integrations, automated many backend processes, freeing up valuable time for the client to focus on scaling their operations.